

We claim:

1. A fuel composition containing, as major component, a gasoline having an aromatics content of not more than 42 vol% and a sulfur content of not more than 150 ppm by weight, and, as minor component, at least one gasoline additive having a detergent action or an anti-valve-seat-wear action, wherein this gasoline additive contains at least one hydrophobic hydrocarbon group having a number-average molecular weight (M_n) of from 85 to 20,000 and at least one polar group selected from
- (a) monoamino or polyamino groups containing up to 6 nitrogen atoms, of which at least one has alkaline properties,
 - (b) nitro groups, optionally combined with hydroxyl groups,
 - (c) hydroxyl groups combined with monoamino or polyamino groups, in which at least one nitrogen atom has alkaline properties,
 - (d) carboxylic acid groups or the alkali metal or alkaline earth metal salts thereof,
 - (e) sulfo groups or the alkali metal or alkaline earth metal salts thereof,
 - (f) polyoxy-(C_2 - C_4 alkylene) groups which are terminated by hydroxyl groups, monoamino or polyamino groups, in which at least one nitrogen atom has alkaline properties, or by carbamate groups,
 - (g) carboxylate groups,
 - (h) groups derived from succinic anhydride and containing hydroxyl and/or amino and/or amido and/or imido groups and
 - (i) groups produced by Mannich reaction of substituted phenols with aldehydes and mono- or poly-amines.
2. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (a), polyalkene monoamine or polyalkene polyamines based on polypropylene, polybutylene or polyisobutylene having a molecular weight M_n of from 300 to 5000.

3. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (b), reaction products of polyisobutenes having an average degree of polymerization P of from 5 to 100 with nitrogen oxides or mixtures of nitrogen oxides and oxygen.
- 5
4. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (c), reaction products of polyisobutene epoxides, obtained from polyisobutylene containing predominantly terminal double bonds and having a molecular weight M_n of from 300 to 5000, with ammonia, mono- or poly-amines.
- 10
5. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (d), copolymers of C_2 - C_{40} olefins with maleic anhydride having a total molecular weight of from 500 to 20,000 whose carboxylic acid groups are completely or partially converted to the alkali metal or alkaline earth metal salts and the remainder of the carboxylic acid groups has been caused to react with an alcohol or amine.
- 15
6. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (e), an alkali metal or alkaline earth metal salt of an alkyl sulfosuccinate.
- 20
7. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (f), a polyether or polyether amine, obtainable by reaction of a C_2 - C_{30} alkanol, C_6 - C_{60} alkanediol, mono- or di- (C_2 - C_{30} alkyl)amine, C_1 - C_{30} alkylcyclohexanol or C_1 - C_{30} alkylphenol with from 1 to 30 mol of ethylene oxide and/or propylene oxide and/or butylene oxide per hydroxyl group or amino group and, in the case of polyether amines, by subsequent reductive amination with ammonia, a monoamine or a polyamine.
- 25
8. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (g), an ester of a mono-, di- or tri-carboxylic acid with a long-chain alkanol or polyol.
- 30
9. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (h), a derivative of polyisobutenylsuccinic anhydride, obtained by reaction of conventional or highly reactive polyisobutylene having a mo-
- 35
- 40
- 45

T02T20-40463360

lecular weight M_n of from 300 to 5000 with maleic anhydride by thermal treatment or via the chlorinated polyisobutylene.

- 5 10. A fuel composition as defined in claim 1, containing, as gasoline additive containing polar groups (i), a reaction product of a polyisobutene-substituted phenol with formaldehyde and a mono- or poly-amine.

- SUB A
10 11. A fuel composition as defined in any of claims 1 to 10, containing a gasoline having an olefin content of not more than 21 vol%.

- 15 12. A fuel composition as defined in any of claims 1 to 11, containing a gasoline having a benzene content of not more than 1.0 vol%.

- 20 13. A fuel composition as defined in any of claims 1 to 12, containing a gasoline having an oxygen content of not more than 2.7 wt%.

- 25 14. A fuel composition as defined in any of claims 1 to 13, containing the gasoline additives containing the polar groups (a) to (i) in a concentration of from 1 to 5000 ppm by weight.

30

35

40

45

100-4046860